



Dart Hawkesbury
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

D2873-043
Job Sheet 165584



Tel (613) 632-5200

Part No: D2873-043

Job Qty: 100 ea

Part Name: Nut Plate Assembly



Part Weight: 0 lbs

Priority: Medium

Job Created: 9/30/17

Status: Scheduled

Due Date: 10/31/17

Job Tracking No:

Created By: Mario Poulin

Type: Stock

Description:

Note: DWG REV A IPP A 05.09.13 New issue KJ/JLM

Ship Via:

Bill of Materials

Part/Part Name	Part Note	Serial No	Quantity	Location
D2873-043 Nut Plate Assembly	DWG REV A IPP A 05.09.13 New issue KJ/JLM		0.000	
MS20426AD4-6 Rivet			0.000	
M6061T6B0.375X01.000 6061T6 Bar .375 X 1.00			0.000	
MS21075L5 Nut Plate			0.000	

Job Routing

Op No	Operation	Qty	Due Date	Standard Setup hrs	Run Hrs	Workcenter / Suppl	Workcenter
90	Start up Operation	100 Ea	10/26/17	0.00	0.00	Start up container	
160	HandFinish (95x 2017/10/19/19/20)	100 pcs	10/30/17	0.00	2.25	HandFinish1	
170	QC 95x 17/10/20	100 pcs	10/30/17	0.00	0.00	QC7	
180	Small Fab 95x 17/10/15	100 pcs	10/31/17	0.00	3.53	Small Fab DAS	
190	QC 95x 17/10/15	100 pcs	10/31/17	0.00	0.00	QC5 38	
200	Packaging	100 pcs	10/31/17	0.00	0.00	Packaging3 38	
210	QC21-SA	100 Ea	10/31/17	0.00	0.00	QC21	

Part Op 180 - 1-Assemble as per Dwg D2873 2-Identify as D2873-043
Descriptions: 200 - LOCATION : LG050

Job BOM

Part / Item	Component Name	Quantity	Operation
M6061T6B0.375X01.000	6061T6 Bar .375 X 1.00	30.8300 ft (.3083 ea)	90-Start up Operation
MS20426AD4-6	Rivet	600 Ea (6 ea)	180-Small Fab
MS21075L5	Nut Plate	300 Ea (3 ea)	180-Small Fab

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	M6061T6B0.375X01.000	31	0	0	0
180-Small Fab	MS20426AD4-6	600 510	0	0	0
	MS21075L5	300 285	0 85x	0	0

Part Specifications

Specifications could not be found.

Part: D2873-043 B165584

Created: 9/30/17 11:52 AM DART.MICHAUD-FEBRILLE.VICTORIA



Serial No: 90000972
Printed By: Goldston, Justin 10/2/17 10:44 AM

Status: Stock

MA517-7102



Dart Aerospace Ltd.

1270 Aberdeen Street
Hawkesbury, ON K64 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com



Nut Plate Assembly

PART NO: D2873-043

Revision:

Operation: QC

Quantity: 95

Change No:

Mfg Date: 10/23/17

Job No: 165584

Work Order Summary

Thursday, September 28, 2017 8:04:25 AM

Page 1 of 1

Criteria : Work Order ID: 165584 Item ID: D2873-043 Product Family MACHINING
Work Order Start Dates 9/6/2017 to 9/6/2017 11:59:59 PM Work Order Required Dates 9/18/2017 to 9/18/2017 11:59:59 PM
All References
Work Order Status Released

Work Order ID 165584 Required Qty 100.0000 Status Code Released
Item ID D2873-043 Accepted Qty 0.0000 Scrap Qty 0.0000
Item Name Nut Plate Assembly
Current Acct Value \$25.917

Start Date	9/6/2017	Required Date	9/18/2017	Completed Date	
Standard	** Actual **		** Acct. Value **	** Variance **	** Variance % **
Direct Costs	Total	Each	Each	Each	Each
Material	\$28.945	\$0.000	\$5.955	\$5.955	100.00%
Labor	\$450.166	\$0.000	\$5.269	\$5.269	100.00%
Outplant	\$0.000	\$0.000	\$0.000	\$0.000	0.00%
Variable Burden	\$0.000	\$0.000	\$0.000	\$0.000	0.00%
Fixed Burden	\$1,313.383	\$0.000	\$14.693	\$14.693	100.00%
Material Burden	\$0.000	\$0.000	\$0.000	\$0.000	0.00%
** Total **	\$1,792.494	\$0.000	\$25.917	\$25.917	

Item ID/Item Name	Required Qty	Issue Code	Issue Date	Issued Qty	Cost Amount
M6061T6B0.375X01.000					
6061T6 BAR .375 x 1.00	32.4526		9/17/2017	32.4600	\$28.945
Total Matl Amts:					\$28.945

Work Center HAAS 1

Employee ID	Rout Seq ID	Labor Date	Setup Hours	Actual Setup Hours	Labor Hours	Actual Labor Hours	Nbr of WOs	Setup Amount	Labor Amount	Fix Burd Amount	Var Burd Amount	Total Amounts
CAME03												
		9/17/2017										
110			5.69	5.69	0.00	0.00	1.00	\$107.060	\$0.000	\$312.354	\$0.000	\$419.415
110			0.00	0.00	1.31	1.31	1.00	\$0.000	\$24.639	\$71.886	\$0.000	\$96.526
		9/18/2017										
110			0.00	0.00	12.02	12.02	1.00	\$0.000	\$226.029	\$659.451	\$0.000	\$885.479
TURC02												
		9/19/2017										
110			0.00	0.00	4.92	4.92	1.00	\$0.000	\$92.438	\$269.692	\$0.000	\$362.130
Total:			5.69	5.69	18.25	18.25	4.00	\$107.060	\$343.106	\$1,313.383	\$0.000	\$1,763.549

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: <u>165884</u> Part No. <u>5</u> NCR No. _____		DISPOSITION Rework ☐ Scrap ☒ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☒</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☒	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																	
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Date: <u>17.09.22</u>		Step #: <u>110</u>		QTY Effective: <u>5</u>		MRB (QSI042) Approval																																																																			
Description Work Order Deviation 5 part, the .250 thickness was .226 to .238" thick R.C. part not sit correctly in the vice				Disposition Scrap and destroy		Completed By <u>PD 17.09.22</u> Lead hand / Supervisor Approval Verification <u>OK 17/09/21</u> QC / QA Coordinator Approval <u>PD 17.09.22</u>																																																																			
Root Cause <table style="width:100%;"> <tr> <td>Environment ☐</td> <td>No Re-verification ☐</td> <td>Pressure/Forced ☐</td> </tr> <tr> <td>Design ☐</td> <td>Operator ☒</td> <td>Bending ☐</td> </tr> <tr> <td>Doc/Data ☐</td> <td>Offset/Setup ☐</td> <td>Centre Not Concentric ☐</td> </tr> <tr> <td>Equip/Tooling ☐</td> <td>Supplier ☐</td> <td>Cracks ☐</td> </tr> <tr> <td>Handling/Pre ☐</td> <td>Training ☐</td> <td>Crimp/Kink/Ripple/Wave ☐</td> </tr> <tr> <td>Material ☐</td> <td>Use for Testing ☐</td> <td>Cuffs ☐</td> </tr> <tr> <td>Internal Transport ☐</td> <td>Poor Information ☐</td> <td>Crushing ☐</td> </tr> <tr> <td>Tribal Knowledge ☐</td> <td>Rushing ☐</td> <td>Heat Treat ☐</td> </tr> <tr> <td>LOA ☐</td> <td>Product Improvement ☐</td> <td>Wave/Twist in Tube ☐</td> </tr> <tr> <td>Substation ☐</td> <td>Process Improvement ☐</td> <td>Marks/Chatter ☐</td> </tr> <tr> <td>Past Expiry Date ☐</td> <td>Manufacturing Process ☐</td> <td></td> </tr> <tr> <td>Misidentified ☐</td> <td>Past Due ☐</td> <td></td> </tr> </table>				Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Design ☐	Operator ☒	Bending ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Past Expiry Date ☐	Manufacturing Process ☐		Misidentified ☐	Past Due ☐		FAULT CATEGORY <table style="width:100%;"> <tr> <td>Temperature/Cure ☐</td> <td>Power Loss/Surge ☐</td> <td>Positioned Wrong ☐</td> </tr> <tr> <td>Set-up ☐</td> <td>Folio/Program ☐</td> <td>Outside Dimensions ☐</td> </tr> <tr> <td>BOM/Route ☐</td> <td>Grain ☐</td> <td>Over/Under tolerance ☒</td> </tr> <tr> <td>Broken/Damage/Defect ☐</td> <td>Weld ☐</td> <td>Part Incorrect ☐</td> </tr> <tr> <td>Inspection Incomplete/Unqualified ☐</td> <td>Wrong Stock Pulled ☐</td> <td>Part Lost/Missing ☐</td> </tr> <tr> <td>Contamination ☐</td> <td>Out of Sequence ☐</td> <td>Part Moved ☐</td> </tr> <tr> <td>Countersink ☐</td> <td>Off-set ☐</td> <td>Drawing ☐</td> </tr> <tr> <td>Cut Too Short ☐</td> <td>Mislabeled ☐</td> <td>Finish ☐</td> </tr> <tr> <td>Instructions Incomplete/Unclear ☐</td> <td>Fit/Function ☐</td> <td>Misread ☐</td> </tr> <tr> <td>Drill Holes ☐</td> <td>Misaligned/off center ☐</td> <td>Turning Sequence ☐</td> </tr> </table>				Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☒	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Countersink ☐	Off-set ☐	Drawing ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
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OTHER: _____																																																																									

Work Order ID 165584

Monday, August 28, 2017 11:44:35 AM

165584

Page 2

Item ID: D2873-043 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Nut Plate Assembly
Start Date: 9/6/2017 Start Qty: 100.00 ***100*** Cust Item ID:
Required Date: 9/18/2017 Req'd Qty: 100.00 ***100*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 2.00				95	0		DAS 49 9-89 07/09/23
140 *140* Small Fab Small Fab	Small Fab Memo 1-Deburr 2- C'sink as per Dwg D2873	0.00 2.42							DAS 30 9-89
150 *150* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 2.00				95			DAS 38 9-89 SEP 25 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐			FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐		
OTHER : ☐					

Work Order ID 165584

Monday, August 28, 2017 11:44:35 AM

165584

Page 3

Item ID: D2873-043

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Nut Plate Assembly

Start Date: 9/6/2017 Start Qty: 100.00

100

Cust Item ID:

Required Date: 9/18/2017 Req'd Qty: 100.00

100

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start ***NR1***

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

Chemical Conversion Coat per QSI005 4.1

0.00

160

HandFinish

Memo

2.26

Hand Finishing

(95) 0 2017/10/19 JSL

170

QC7-Inspect Chemical Conversion Coat

0.00

170

QC

Memo

1.00

Quality Control

180

Small Fab

0.00

180

Small Fab

Memo

2.41

Small Fab

1-Assemble as per Dwg D2873 2-Identify as D2873-043

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : ☐					

Work Order ID 165584

Monday, August 28, 2017 11:44:35 AM

165584

Page 4

Item ID: D2873-043 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Nut Plate Assembly
Start Date: 9/6/2017 Start Qty: 100.00 ***100*** Cust Item ID:
Required Date: 9/18/2017 Req'd Qty: 100.00 ***100*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190 *190* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 2.00				_____	_____	_____	
200 *200* Packaging Packaging	Identify as per dwg & Stock Location: _____ Memo LOCATION : LG050	0.00 1.00				_____	_____	_____	
210 *210* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 10.00				_____	_____	_____	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
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Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Monday, August 28, 2017 11:44:38 AM

Page 1

Work Order ID: 165584

165584

Parent Item: D2873-043

D2873-043

Parent Item Name: Nut Plate Assembly

Start Date: 9/6/2017

Required Date: 9/18/2017

Start Qty: 100.00

Required Qty: 100.00

Comments: IPP A05.09.13New issueKJ/JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MS21075L5		Purchased	No			100	Each	519.0000	3	300			

MS21075L 5

Nut Plate

Location

Loc Qty

Loc Code

GA

519

m137405

7

m137951

62

m138041

200

m138042

250

M6061T6B0.375X01.00

Purchased

No

180

f

33.6410

0.3083

32.45263

0

M6061T6B0 375X01 000

6061T6 BAR .375 x 1.00

DAS

1

9-89

17-09-19

Location

Loc Qty

Loc Code

MAT

33.641

136036

1.06

m134984

1.288

m137762

2.432

m137844

8.861

m138152

20

138470

**38X
62X**

**13-3
20-00**

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Monday, August 28, 2017 11:44:38 AM

Page 2

Work Order ID: 165584

165584

Parent Item: D2873-043

D2873-043

Parent Item Name: Nut Plate Assembly

Start Date: 9/6/2017

Required Date: 9/18/2017

Start Qty: 100.00

Required Qty: 100.00

MS20426AD4-6

Purchased

No

180

Each

910.0000

6

600

MS20426AD4-6

Rivet

Location

Loc Qty

Loc Code

CCK004

861

M137851

861

GA

37

M134502

25

M137851

12

ST311

12

M136537

12

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					

DART AEROSPACE LTD		Work Order:	165589
Description: Radius Block		Part Number:	D2873-3
Inspection Dwg: D2873 Rev: A		Page 1 of 1	

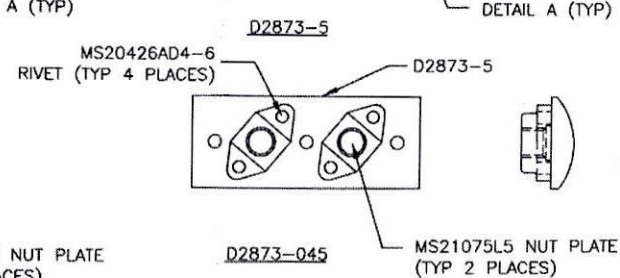
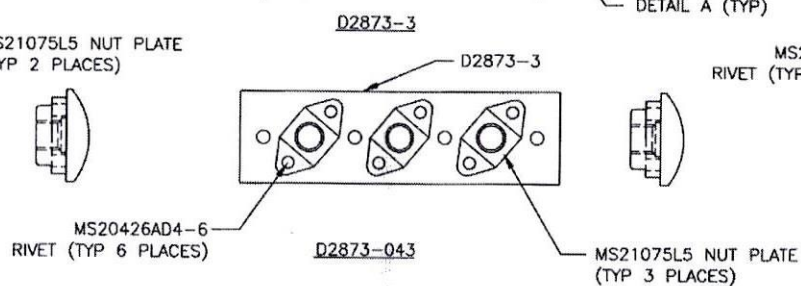
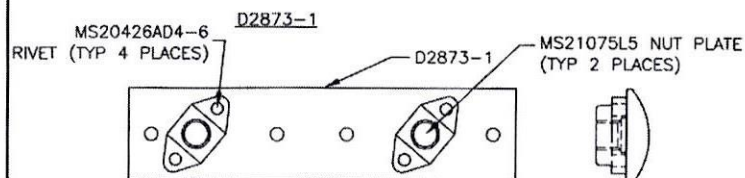
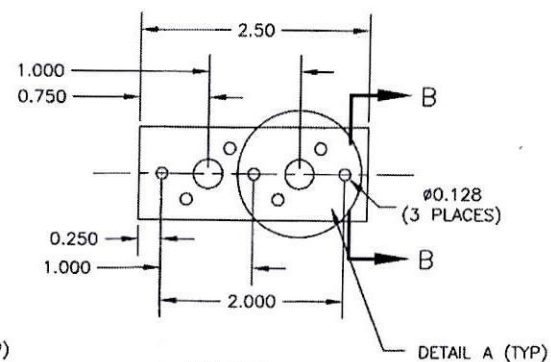
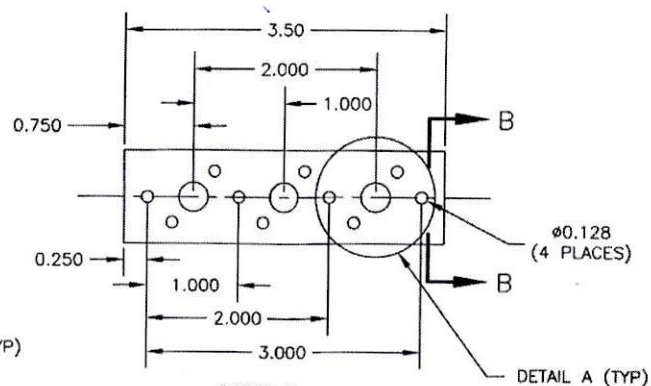
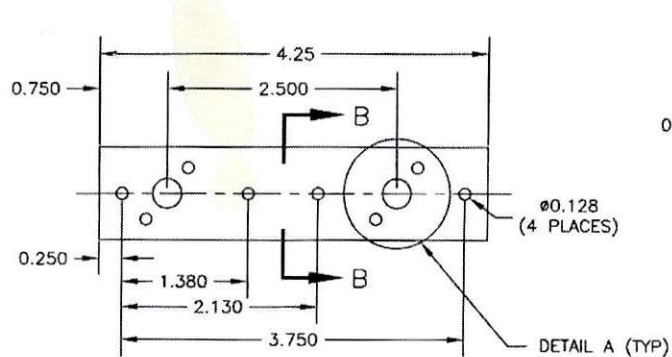
FIRST ARTICLE INSPECTION CHECKLIST

☒ **First Article** ☐ **Prototype**

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
3.50	+/-0.030	3.501	✓		Ver E D-6	
2.000	+/-0.010	1.998	✓		"	
0.750	+/-0.010	.752	✓		"	
1.000	+/-0.010	1.000	✓		"	
0.250	+/-0.010	.248	✓		"	
1.000	+/-0.010	1.000	✓		"	
2.000	+/-0.010	2.000	✓		"	
3.000	+/-0.010	3.001	✓		"	
Ø0.128	+0.005/-0.001	Ø.128	✓		G.P	
0.359	+/-0.010	.357	✓		Ver E D-6	
Ø0.316	+0.006/-0.001	.316	✓		G.P	
1.000	+/-0.010	1.001	✓		"	
0.250	+/-0.010	.245	✓		Ver E D-6	
0.061	+/-0.010	0.061	✓		"	
Ø0.230 x 0.125	+0.005/-0.001 x 0.010					

Measured by: SC. / m	Audited by: DAS 49	Prototype Approval:	N/A
Date: 17/09/17	Date: 17/09/17	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	06.08.30	New Issue P/O D2873-043	KJ/JLM	



D2873-041

D2873-1/-3/-5 RADIUS BLOCK

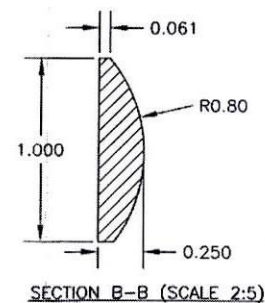
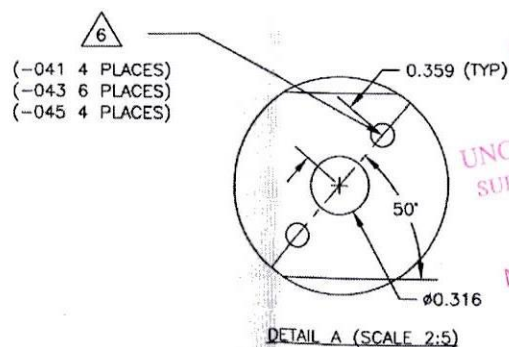
- 1) MATERIAL: 5052-H32/H34 BAR (QQ-A-225/7) (REF. DART SPEC M5052H32B1.000X0.250) OR 6061-T6 BAR (QQ-A-225/8 OR QQ-A-200/8) (REF. DART SPEC M6061T6B1.000X0.250)
- 2) FINISH: ACID ETCH AND ALODINE PER DART QSI 005 4.1
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE INCHES
- 5) BREAK ALL SHARP EDGES 0.010 TO 0.020
- 6) Ø0.128 PILOT + C'BORE CURVED SIDE Ø0.230X0.125 DEEP + C'SINK CURVED SIDE Ø0.225 x 100'

D2873-041/-043/-045 NUT PLATE ASSEMBLY

- 1) INSTALL MS21075L5 NUT PLATE IN ORIENTATION SHOWN USING MS20426AD4-6 RIVETS

D2873-041/-043/-045 NUT PLATE ASSEMBLY PARTS LIST

-041	-043	-045	PART NUMBER	DESCRIPTION
X			D2873-041	NUT PLATE ASSEMBLY
	X		D2873-043	NUT PLATE ASSEMBLY
		X	D2873-045	NUT PLATE ASSEMBLY
1			D2873-1	RADIUS BLOCK
	1		D2873-3	RADIUS BLOCK
		1	D2873-5	RADIUS BLOCK
4	6	4	MS20426AD4-6	RIVET
2	3	2	MS21075L5	NUT PLATE



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UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 165 584 MLO 170829

RELEASED
05-07-26

A	05.07.26	NEW ISSUE
DESIGN PH	DRAWN BY PH	DART DART AEROSPACE LTD WILLOWDALE, ONTARIO, CANADA
CHECKED DS	APPROVED DS	DRAWING NO. D2873
DATE 05.07.26	TITLE RADIUS BLOCK	REV. A SHEET 1 OF 1 SCALE 4:5